

Record Group 4; Federal Agencies. Hearings before the Special Subcommittee on the Selection of Astronauts, Committee on Science and Astronautics, US House of Representatives; *Qualifications for Astronauts*. July 17-18, 1962.

This Congressional testimony by Jerrie Cobb, Jane Hart, Jacqueline Cochran, George M. Low, John Glenn, and Scott Carpenter discusses the tests run by W. Randolph Lovelace on 13 women as part of his "Women in Space" Program, also known as the First Lady Astronaut Trainees (FLATs) or Mercury 13. Testimony also debates the possibility of women qualifying as astronauts, the 1962 astronaut selection criteria for Gemini and Apollo, particularly the requirement that astronaut candidates be graduates of a test pilot school. Testimony by NASA officials notes the participation of women in the space program as scientists and engineers. Digital copy available via Google.

Record Group 6; National Advisory Committee for Aeronautics. *Memorandum for Engineer-In-Charge - Organization of SP-1 Female Employees by the Aeronautics Division*. April 21, 1943

This document outlines the employment of women computers at Langley during WWII. It discusses pay and type of work done. It also addresses resentment from men who would be their supervisors and the kind of classroom training the women would receive in effort to mitigate the issue. The document summarizes the interview requirements, a basic classroom, and hand-on training plan. It lays out the intent to make access to transportation easy and further training available as retention incentives. It notes that the women worked as well as the men under pressure on both night and day shifts, and that many have received "Excellent" ratings. Further, the memo states that it was more difficult for married women to work nights, thus forming a preference for single women. The document gives statistics, names of employees and employment status (such as "terminated for pregnancy"), and dates. Finally, it notes that requests were being made for more women employees. Available online at <https://crgis.ndc.nasa.gov/crgis/images/d/d6/SP-1Employees1943.pdf>

Record Group 6; National Advisory Committee for Aeronautics. 1940s.

Document discusses the "West Computing Group", the segregated group of human computers at the Langley Memorial Aeronautical Laboratory (later the Langley Research Center) that employed African American women. As of July 14, 2020, available in hardcopy only; *record number 18897*.

Record Group 7; Administration and Organizations. Webb, J. 1962.

This document discusses official NASA policy on Equal Employment Opportunities for women at NASA prior to the formation of the Equal Employment Opportunity (EEO) office in 1964. As of July 14, 2020, available in hardcopy only; *record number 8996*.

Record Group 7; Administration and Organizations. Roman, N.; "Role of Women Scientists in the Space Program". January 31, 1963.

This speech notes the then current status of women scientists at NASA centers, discusses the discoveries and roles of women scientists in the space sciences including some of Dr. Roman's own experiences, and the prospects for the future of women in the sciences as NASA science programs began to mature. Dr. Roman was the most senior female NASA official at the time of her speech. *Record number 62485*.

Record Group 7; Administration and Organizations. Women in Motion, Inc.; NASA Astronaut Recruitment Final Report. August 10, 1977.

This report discusses efforts by Women in Motion and, in particular, actress Nichelle Nichols to attract women and minority applicants for the Space Shuttle astronaut selection then in progress. As a secondary goal, Nichols and Women in Motion encouraged applications for employment at NASA from female students and students from Historically Black Colleges and Universities (HBCU) in science and engineering fields. *File names Nichelle Nichols Report part 1.pdf, Nichelle Nichols Report part 2.pdf, Nichelle Nichols Report part 3.pdf, Nichelle Nichols Report part 4.pdf, Nichelle Nichols Report part 5.pdf*.

Record Group 9; Authors Collections. Gainor, C. and Ruley, J. 30 Years of the Hubble Space Telescope. Space Telescope Science Institute; Urry, Meg Memo; Workshop on Women in Astronomy. June 16, 1992

This memorandum primary deals with the schedule of the workshop. However, the attached memorandum from Riccardo Giacconi discusses the position of the Institute on matters of sexual harassment, a drug-free workplace, and appointments of spouses and family. He also discusses relationships that form in the office and how such relationships can impact the workplace. *File name Urry_Memo_Workshop_in_Astronomy_1992-06-16.pdf*.

Record Group 11; Space Flight – Human Space Flight. Slayton, D. to Ivins, M.; May 4, 1970.

This document is a response to female college student's inquiry about applying to become an astronaut. Slayton notes astronauts were not going to be hired for some years, but the presence of women in the astronaut corps was inevitable. Marsha Ivins joined NASA as an engineer in 1974 and was selected as an astronaut in 1984. *File name 8998 – Slayton to Ivins – 1970.pdf.*

Record Group 11; Space Flight – Human Space Flight. Myers, D. *Future Astronaut Selection*; September 26, 1972.

This letter notes that NASA Administrator James C. Fletcher had requested a plan for including women and minority candidates in the next astronaut selection and requests Manned Spacecraft Center (MSC) assistance in creating the plan. We do not have a copy of the final plan submitted to Fletcher. Additional information on the plan and its evolution until the selection of the 1978 astronaut class may be found in the National Archives Record Group 255, Office of Manned Space Flight material. *File name 8996 – Myers to Kraft re women and minority astronauts – 1972.pdf.*

Websites:

Mercury 13: <https://history.nasa.gov/flats.html>

NASA History Division; Women at NASA: https://history.nasa.gov/women_at_nasa.html

Finding Aids:

Astronauts Subject Files – includes material on women's efforts to become NASA astronauts and NASA policy over time on the hiring of women astronauts; Nichelle Nichols report; women in science and engineering roles at NASA; Mercury 13, also known as First Lady Astronaut Trainees (FLATs); and astronaut selection groups, known as classes.

Equal Employment Opportunity (EEO) Office Collection – includes material on women's roles at NASA, NASA policies on the hiring and advancement of women, and the issues faced by both minority and white women at NASA.

NACA/NASA Equal Employment Opportunity (EEO) Programs Collection – source material for an unpublished history on the experience of women and minorities at the National Advisory

Committee for Aeronautics (NACA) and NASA from the 1940s through the 1980s. Includes information on pay, numbers of female and minority personnel at headquarters and centers, correspondence on hiring and issues faced by women and minorities, and oral histories.

Office of Personnel Files – includes civil service workforce reports breaking down number of employees by gender, race, and occupational category. Also includes a small amount of material on NASA personnel matters prior to the formation of the Equal Employment Opportunity (EEO) Office.

Sylvia Fries “NASA Engineers in the Age of Apollo” Book Sources Collection – includes statistical data, workforce reports, and oral histories with female and male engineers active during the Apollo program. Oral histories are arranged by NASA center.

Books and Other Printed Material:

Monographs in Aerospace History #6. Goecke Powers, S. *Women in Flight Research at NASA Dryden Flight Research Center from 1946 – 1995*. July 1997.

This monograph describes women’s roles at Armstrong Flight Research Center (formerly Dryden) as early as 1946. The author discusses women’s roles and occupations, hiring, changes in societal expectations for women, their educations, and statistics. The monograph details the early cooperation between the NACA and the Air Force as well as equipment tested at Edwards and Armstrong, and the name changes of the base. The fine details of the photos are difficult to see. However, the citations will allow the researcher to request higher resolution images and the captions list many female employees’ names. The monograph is chronological, starting with the early living and working conditions on the base, with stories of individual people woven in. The manuscript also notes the changes in management and working environment through the early 1950s that created challenges for female employees. One of the points discussed is how the end of WWII, the GI Bill, and the amount of men coming out of college changed the roles for women computers and engineers. The monograph also notes the changes and statistics for women in engineering, science, technology, computing, and society through the mid-1990s. This monograph does not address the roles for women of color or lack thereof, or the LGBTQ+ community, and has a more casual tone rather than a strict historical analysis. The PDF is available at <https://history.nasa.gov/monograph6.pdf>

NASA Special Publication 4104. Fries, S. *Engineers and the Age of Apollo*. 1992.

This book describes NASA engineers, both women and men, who were employed by NASA during the Apollo program and is based on a series of oral histories and statistical analyses conducted by the author. The author delves into both the individual experience of engineers and analyzes demographic changes in the engineering professions at NASA. The book specifically highlights the experience of some of the women engineers, both white and African American, who helped to further NASA programs during the 1960s and 1970s. The book traces the careers paths of the engineers through the 1980s, when the author was conducting her research. PDF is available at <http://history.nasa.gov/SP-4104.pdf>. See finding aids section for more information on sources from this book.

NASA Headquarters Historical Note HHN-160. Fries, S.; *History of Women in NASA*. August 23, 1991.

This paper discusses the overall roles of women at the National Advisory Committee for Aeronautics (NACA) and NASA up through the 1980s. The author notes the slow progress of women into engineering and management roles and the attitudes of some of NASA management towards women becoming astronauts and managers of engineering or scientific programs. *Record number 59678*.

Morgan, J.; *Women: A Key Workforce in Preparation for Space Flight*.

As of July 14, 2020, available in hardcopy only; *record number 8995*.